FDM 3-20-1 Project Agreements

July 12, 1991

1.1 Contracts with Local Units

The authority to enter into contractual agreements with local units of government (and upon their request) is established in Section 84.01 of the Wisconsin Statutes, and the responsibility for negotiation of the terms of such agreements rests with the district. Through negotiations between the local unit(s) involved and the district, agreement is reached on the extent of local unit participation in work effort and financing. Although the timing of this activity is variable, it is necessary to establish the bases of the working and financing arrangements prior to commitment of staff effort in the final design phase of the process.

Consideration should be given to establishing multiple agreements in those instances where engineering costs will be shared; when the project is considered to be "complex" (and it becomes convenient to draft separate agreements for engineering and for right-of-way and construction); or when there is uncertainty with respect to the project's overall timespan, funding availability, etc. However, for other less involved projects, a single agreement will generally be appropriate.

For more information on the specifics of the application and preparation of the contract documents, refer to the Program Management Manual.

FDM 3-20-5 Complete Data Gathering

April 19, 2002

5.1 Refine Project Controls

Having reached agreement with the local unit(s) involved, the district proceeds to complete data-gathering activities prior to developing final engineering of the project. Although the extent of data-gathering activities is variable and dependent upon the nature of the project, they usually include the following considerations:

1. Completion of surveying and mapping activities (involving staff contacts with area property owners, as appropriate) to supplement and refine data gathered earlier on the existing alignment, topography, utilities and drainage, etc., controls.
2. Preservation of any established survey landmarks in accordance with the provisions of Section 59.635 of the Wisconsin Statutes.
3. Sampling and classification of area soils types.
4. Further investigation of traffic data as well as utility and railroad planning with respect to earlier studies.
5. Title searches to establish ownership of properties to be acquired.

FDM 3-20-10 Detailed Engineering

April 19, 2002

10.1 Development of the Design

With site surveying and data collection completed, the detailed design of the project is developed, generally comprising activities such as the following:

1. Establishing the alignment and the horizontal and vertical geometrics.
2. Designing drainage features, including ditching, storm sewer and curb and gutter, culvert sizing and selection; developing underdrain systems, etc. It is often necessary to coordinate with local drainage boards in accordance with Section 86.075 of the Wisconsin Statutes to assure that established drainage ditches are not altered or affected without the approval of the drainage district board. (See FDM 5-15-1.)
3. Establishing the location and general design parameters for all large structures--box culverts, bridges, etc. Although the formal design of such structures is done by the Structure Design Section in the Bureau of Structures, the development and proper coordination is initiated in the district.
4. Developing any special design features as necessary. This includes any features needed to carry out commitments made for mitigating environmental impacts.

5. Refining traffic handling methods that were previously established in the Design Study Report. This includes the application and detailing (within the plans and/or special provisions) of all features needed to adequately control traffic through the project (see FDM 11-50 Attachment 20.1). Detours may require inter-district or inter County coordination and may require construction or reconstruction themselves before they can accommodate the projected traffic.
6. Establishing construction balance points through earthwork analysis to shorten haul distances and reduce the amount of borrow as much as feasible.
7. Computing quantities and preparing construction estimates of manpower, equipment, and materials.
8. Estimating right-of-way costs for the project.
9. Other design activities, as appropriate.

For more information on design considerations, consult Chapter 11 of this Manual.

FDM 3-20-11 Force Account Agreements

March 4, 2013

11.1 Introduction

Although WisDOT policy is to let construction contracts through a competitive bidding process, under special circumstances the department may enter into an agreement directly with local governments, railroads, and utilities for the performance of construction work. Several types of "force account" agreements are used to this end and they are discussed in this procedure. [Note: the “force account” agreements discussed below are different than the Force Account work described in Section 2.46 of the Construction and Materials Manual.]

11.2 Wisconsin Statutes

The statutory basis for WisDOT's policy to let contracts through bidding lies within Section 84.06(2) which states in part:

> *"All such highway improvements shall be executed by contract based on bids unless the department finds that another method as provided in sub. (3) or (4) would be more feasible or advantageous."*

Subsection (3) allows the department to forgo the bidding process and enter into an agreement directly with local governments by stating in part:

> *"If the department finds that it would be more feasible and advantageous to have the improvement performed by the county in which the proposed improvement is located and without bids, the department may, by arrangement with the county highway committee of the county, enter into a agreement satisfactory to the department to have the work done by the county forces and equipment."*

The same allowance is made for cities, towns and villages:

> *"The provisions of this subsection relating to agreements between a county and the state shall also authorize and apply to such arrangements between a city, town or a village and the state."*

Utilities and railroads may also enter into a force account agreement with the state as allowed by Subsection (4) which states in part:

> *"If an improvement undertaken by the department will cross or affect the property or facilities of a railroad or public utility company, the department may, upon finding that it is feasible and advantageous to the state, arrange to perform portions of the improvement work affecting such facilities or property or perform work of altering, rearranging or relocating such facilities by agreement with the railroad or public utility. Such agreement shall be between the railroad company or public utility and the state and need not be based on bids."*

11.3 Types of Force Account Agreements

The department has developed several agreement types for the administration of the force account agreements allowed by 84.06 (3) & (4). The type of agreement to be used for a particular project is primarily dependent on the organization performing the work. Other criteria of interest are the funding program and the jurisdictional system on which the work will be done. These considerations are outlined in the following table:

Table 11.1 Agreements

Type of Agreement	System	Funding Source	Funding Program
STATE FORCE ACCOUNT	STH	Fed/State	Any
LOCAL FORCE ACCOUNT (on the STH system)	STH	Fed/State/Local	Any
LOCAL FORCE ACCOUNT (on the local system)	LOCAL	Fed/State/Local	STP/HES/BR/CMAQ/TE
Utility Agreement	Any	Any	Any
Railroad Agreement	Any	Any	Any

11.4 State Force Account Agreements

As noted in FDM 3-1-3, a State Force Account (SFA) is used when the Department performs work on the State Trunk Highway System with its own forces and equipment and the work is funded under an improvement project.

11.5 Local Force Account Agreements

Local Force Account (LFA) agreements are used when a local unit of government either does work for WisDOT on the State Trunk Highway System or when they do work on their own local highway system. Local units cannot use Federal-aid funds to have another local unit perform construction work on their own system. Under these agreements the locals are reimbursed for the actual costs incurred in performing the work up to an agreement maximum (as amended by any change orders, no change in scope for Local Force Account State); however, the labor, material, and machinery rates are projected in advance and must be determined to be cost effective. These agreements are to be based on the actual cost required to perform the work so that they cannot result in profit or loss for the unit of government performing the work. Any state, local or federal funding program for which the project is eligible may be used with this agreement type.

11.6 Utility & Railroad Agreements

Utility (UTL) and railroad (RR) agreements are used when railroad companies or public utilities perform portions of road improvement work that affect their facilities, or work to alter or relocate their facilities. Any available funding source may be used for these agreements and the work may be done on any jurisdictional system. These types of agreements have been deemed to be in the public interest by definition and need not be justified on an individual project basis.

11.7 Policy Regarding Agreements

To better define allowable types of work, funding limitations, individual agreement limitations, etc., "A Policy on Construction of State and Federal Aid Highway Projects By Forces and Equipment of Counties or Other Local Governmental Units" has been developed by WisDOT is attached as Attachment 11.1.

This policy also defines the items necessary to show that a force account agreement with a local unit of government is cost effective. FDM 3-20-12 describes how a Cost Effectiveness Finding is developed as well as other cost documentation for a force account agreement.

11.8 Developing a Local Force Account Agreement

The municipality, through interaction with the region, may proceed to develop an agreement after being informed by the region that the cost effectiveness finding and any exceptions to policy criteria have been approved. Agreement forms and guidance are located in FDM 19-25-5. See FDM 3-20-12 for information for developing a Cost Effectiveness finding.

11.9 Contracted Work (Federal Funded)

Municipalities that wish to perform work with their own forces on their own system using federal funds must be “adequately staffed and suitably equipped” to undertake and satisfactorily complete the work. “Adequately staffed” means that all work must be completed by the municipality itself (unless let via a competitive contract). If the municipality requires assistance from a contractor, then by definition, they do not have adequate forces to complete the work.

In lieu of including the work as part of an LFA, a municipality may contract separately for services/work from private industry to do a portion of a project. The resultant contract would not be part of the LFA.The LFA work must only be that work which the municipality is capable of doing themselves.

LIST OF ATTACHMENTS

Attachment 11.1	A Policy on Construction of State and Federal-Aid Highway Projects By Forces and Equipment of Counties or Other Local Governmental Units
Attachment 11.2	Summary Guidelines for Force Account Agreements

FDM 3-20-12 Cost Effectiveness Findings

March 4, 2013

12.1 General

If a municipality (county or other unit of local government) wishes to construct a highway project with its own work force and equipment, it must comply with the Wisconsin Department of Transportation's "A Policy on Construction of State and Federal-Aid Highway Projects by Forces and Equipment of Counties or Other Local Governmental Units." The policy has been written to define WisDOT's position, regarding non-competitive bid agreements (force account agreements) with municipalities. The policy establishes general procedures and criteria for entering into force account agreements.

This policy is shown in FDM 3-20 Attachment 11.1. Guidelines for the preparation and approval of a cost effectiveness finding are discussed in this procedure. Questions about the policy should be directed to the staff of the Project Services Section in the Bureau of Project Development (BPD) for federally funded improvement projects, or the staff in the Materials Management Section in the Bureau of Technical Services (BTS) for state funded maintenance projects.

12.2 Policy Requirements

Before a municipality will be allowed to enter into a force account agreement with WisDOT, it must show that the interests of the public will be best served by using municipality forces and equipment rather than those of a private contractor. This is done by making a Cost Effectiveness Finding (CEF), which documents the efficient use of labor, equipment, and materials and supplies to assure the lowest overall cost benefits the public's general interests.

The "Cost Effectiveness Finding" section of WisDOT policy lists two requirements.

1. The costs will be less than those costs that would be obtained through competitive bidding. This means that the municipality must show that they can do the work at less cost than under a let agreement, and
2. The municipality is properly staffed and equipped to perform the work. This means that they will not have to specially train their employees or buy equipment to do the force account agreement work. This provision does not preclude municipality from the limited use of specialized rental equipment (subject to the limitations discussed in the policy).

Additional guidance on the appropriateness of work for a force account agreement is included in FDM 3-20 Attachment 11.2 entitled "Summary Guidelines for Force Account Agreements."

A cost effectiveness finding will not be needed in certain cases where there is a finding of cost effectiveness on a program basis. The FHWA and WisDOT have determined that it is cost effective and in the public interest to use the force account agreement method on any highway system for these types of work:

1. Projects to adjust utilities and railroad facilities owned or operated by a public agency, railroad company, or a utility company, provided they are qualified to perform the work in a satisfactory manner. See Part 635.205 of the Federal-Aid Policy Guide (FAPG).
2. Emergency repairs to restore services or to protect facilities, with the concurrence of the FHWA on federally funded agreements. See 23 CEF 635.204.

A programmatic cost effectiveness study has been approved for low-cost state or federally funded projects estimated at $25,000 or less. Attachment 12.2, "Justification for Force Account Agreements for $25,000 or Less," is required for all projects, including small HSIP projects to show they fall under the programmatic cost effectiveness study. A copy of the justification must be placed in the project files.

It should be noted that the state Cost Effectiveness Finding serves the same purpose as the federal Cost Effectiveness Finding.

12.3 Compliance Procedure

The municipality and/or WisDOT region, as appropriate, should follow these general steps when developing a force account agreement with WisDOT that is expected to cost more than $25,000.

1. Prepare a cost effectiveness finding and submit it to the appropriate region office of WisDOT.
2. Have the finding accepted by the Region Local Program Project Manager.
    - For LFA (Federal Funded) projects, the region-accepted CEF shall be approved by the Chief of the Project Development Section in the region. For proposed projects outside of current policy parameters (see FDM 3-20, Attachment 11.1) contact the Chief of the Project Services Section in the Bureau of Project Development.
    - For LFA (State Funded) projects, the region-accepted CEF shall be submitted for approval to the Chief of the Materials Management Section in Bureau of Technical Services.
3. Develop a force account agreement.
4. Submit a final agreement and final construction plans, specifications, and estimates (P.S. & E.) for approval. This includes forms DT25 and DT2056. These steps are described in detail below.

12.3.1 Prepare and Submit a Cost Effectiveness Finding

Very early in the development of a highway project, the sponsoring municipality should decide if it has the capability and wishes to construct the project with its own work force and equipment. For federally funded LFAs if the municipality feels the answer is yes, it should follow the Prequalification process discussed in FDM 3-20 Attachment 11.1. Once approved for a particular work category (or categories) the municipality should prepare (and submit to the appropriate Region Local Project Manager) a written cost effectiveness finding. For state funded LFAs the regions should prepare a written Cost Effectiveness Finding (CEF). CEFs must contain the following information.

1. Project location
2. Nature of the project
3. Proposed funding
4. Cost analysis
5. Total cost estimate
6. Private Contract Cost Comparison
7. Justification

Project Location: Describe where the project is located, its termini, and its length. Include a location map.

Nature of the Project: State what type of construction is proposed. Describe project concept in its entirety. Include work to be completed by LFA and work not included in the LFA. This includes locally funded completed with local forces, locally let and state let.

For federally funded LFAs, note that the policy states the types of work that are allowed and requires that a municipality be prequalified for the type of construction anticipated.

Proposed Funding: State the type of anticipated funding and the amount or percentage of construction costs that the municipality expects to pay. If there is some special interest or arrangement that may affect the amount the municipality will pay, it should be stated. This should be consistent with the State/Municipal Agreement (SMA). If funding options have changed since the SMA was signed, the SMA may need to be updated/revised.

Cost Analysis: All CEFs must include a cost analysis which is to be prepared in the manner set forth in the ten-set method shown below. This involves estimating the unit cost of individual work items and multiplying these unit costs by the estimated quantity of each item to obtain item costs. The policy does not require a detailed cost analysis of force account agreement prices at this stage. Rather, the cost analysis needs to be only as detailed as it is necessary to show that it will cost less to do the work with municipality forces than with private forces. The use of rough but reasonable estimates of work quantities is acceptable. (It should be noted the preparer should complete the cost analysis as completely and accurately as possible to avoid having to update a previously approved CEF as detailed in Section 3.3.)

This cost analysis will be updated later when the final cost analysis is completed as discussed in FDM 19-25-5. Current rates for wages and machinery rental may be used without updating to the construction year. Municipality experience under recent and comparable projects may be used to set production rates for personnel and equipment. An acceptable alternative method of making a cost analysis is to select realistic unit prices that resulted from a recent and comparable project done by the municipality's work force and equipment.

Because of the shorter time frame that generally exists for LFA projects on the STH system between the preparation of the cost effectiveness finding and the preparation of the agreement, it may be advisable to

prepare the Final Cost Estimate required for the agreement at this stage.

To make a detailed cost analysis:

1. Isolate a work item and estimate its quantity.
2. Determine equipment that is needed to do that work.
3. Determine the number of personnel and their job classifications needed to do the work.
4. Determine the production rate of personnel and equipment.
5. Calculate hours of production by dividing the quantity by the production rate.
6. Calculate equipment cost by multiplying the hours of production by the current machinery rental rate.
7. Calculate personnel cost by multiplying the hours of production by the current labor rate for that classification.
8. Determine cost of materials.
9. Add the cost of equipment, personnel, and materials to get the total work item cost.
10. Divide the total work item cost by the quantity to get the cost per unit of work (unit price). This process is then repeated for each work item.

The cost analysis is an important part of agreement development, since it forms the factual basis for determining total cost of the project. An example is found in FDM 19-25-5. The example in FDM 19-25-5 is also applicable to LFA (STH) using SHRM Funding unless a process based on historical data as shown in Attachment 12.4 of this procedure is used instead.

Borrow pits, gravel pits, and quarries on federally funded LFA projects are to be located and details of loading and hauling determined at the time the cost analysis is prepared. The region should review changes in pit location as they may affect the analysis and subsequently require a change order to a LFA agreement.

Reimbursement for street lighting and traffic signal work performed by municipalities is also based on actual cost. The materials cost can be an actual purchase cost from a supplier or, if the municipality fabricates the signal or lighting equipment based on average unit cost from a supplier or, if the municipality fabricates the signal or lighting equipment, based on average unit costs supported by historical data. This average unit cost shall include the cost of labor, equipment, and materials to fabricate the signal or lighting equipment (which would be the material cost under an LFA project). Components of unit costs must be allowable under Office of Management and Budget Circular A-87. Average unit cost proposals submitted by a municipality are subject to audit and approval by the Bureau of Financial Services prior to execution of agreements.

Total Cost Estimate: This is the sum of item costs estimated above. The method of selecting unit prices from municipality experience will require multiplying each work item quantity by its unit price. The estimate should state the quantity, cost of each work item, and total agreement cost. An example is shown in Attachment 5.3 of FDM 19-25-5. While unit costs may be used to estimate item costs and total agreement cost, it should be remembered that final reimbursement for work performed will be based on actual costs, limited to the total agreement cost (as amended by change orders as discussed in CMM 2-42.2, no change in scope for Local Force Account State).

Note that the policy sets criteria for the allowable dollar size of projects. Exceeding these limitations on federally funded projects must be justified and approved by the Bureau of Project Development Director. The Chief of Project Services Section will facilitate the review of exceptions.

Specialized Equipment Rental: Summarize the specialized equipment to be used to complete the project. Include total cost for each piece of specialized equipment and an overall percentage of the agreement amount. Remember; specialized equipment may be rented up to a maximum of $25,000 or 25% of the agreement amount, whichever is less.

Private Agreement Cost Comparison: After determining the total cost if the municipality constructs the project, municipal officials must compare that total with the estimated cost if the project was done by a private agreement or under a competitive bidding process. Unit prices may be established by review of recent and comparable WisDOT let contracts and/or locally let contracts awarded to private firms. WisDOT let contract information is available in the region offices or can be accessed at the DOT website: http://roadwaystandards.dot.wi.gov/hcci/bid-letting/index.shtm. Local cost information is acceptable but will require a reason for using the local cost information and a submittal of source information for verification. The source of the comparable information must be documented in a narrative detailing the source of comparables, methods used in estimating the unit prices and any differences in comparables/items. Lack of available

contractors in the area or a lack of interest on their part should be considered in setting unit prices and documented. From these unit prices the municipality should develop a private contract cost estimate. Comparison of the two totals must show a cost savings under a force account agreement.

Any difference in the project items and/or quantities between the cost analysis and the private contract cost comparison must be supported by a detailed explanation.

Design engineering and construction administration costs should not be considered when determining cost effectiveness.

Justification: This part of the cost effectiveness finding will consist of positive statements addressing each of the two requirements of the "Cost Effectiveness Finding" section of the policy. Emphasis should be placed on the cost effectiveness of the municipality's proposal.

Attachment 12.1 shows a standard format that addresses each of the above points for LFA (Federal Funded) on Agreements greater than $25,000.

Attachment 12.3 shows a format that the region can use to forward the local request to the central office for final approval of the cost effectiveness finding.

If the LFA agreement on the STH system will exceed cost limits contained in FDM 3-20-11, add a paragraph to the letter to the BTS Materials Management Section to acknowledge that the limit(s) are exceeded, note the amount by which exceeded, state the necessity for it and request an exception to the individual project limit. LFAs on the local system that exceed the cost limits should be forwarded to the Project Services Section in the Bureau of Project Development with similar documentation.

12.3.2 Approving a Cost Effectiveness Finding

LFA (State Funded): The Division Administrator has authorized the Chief of the Materials Management Section in BTS to approve or disapprove all CEFs for LFAs on the STH system except as noted below.

LFA (Federal Funded): Municipalities will submit the CEF to the region local program Management Consultant (MC) for LFAs managed through the MC. The MC will review the CEF, ensuring that the CEF contains all required documentation, and cost estimates are realistic. If the review is satisfactory, the MC will recommend approval of the CEF to the WisDOT region Local Program Project Manager. If the proposed project is within policy limits and the Region Local Program Project Manager concurs with it, the CEF will approved by the Chief of Project Development Section in the region.

For LFAs managed by the Region LFA coordinator, the municipalities will submit directly to the region LFA coordinator. The Region LFA coordinator will review the CEF, ensuring the CEF contains all required documentation, and cost estimates are realistic. If the review is satisfactory, the Region LFA coordinator will transmit the CEF for approval by the Chief of Project Development Section in the region for approval.

The Division Administrator has authorized the Chief of the Program Development Section in the region to approve or disapprove all CEFs for LFAs on the local system except as noted below.

The Administrator will approve or disapprove those cost effectiveness findings proposing to exceed policy limits for project type, cost, or region quota. Action by the Administrator will be considered an approval or disapproval of both the cost effectiveness finding and the exception.

Findings for federal-aid projects subject to federal oversight must be approved by the FHWA. This approval must be obtained before requesting construction authorization.

As stated previously in this procedure, certain types of projects do not require a separate cost effectiveness finding as they are covered by a prior determination made by the FHWA. However, the Director of either the Bureau of Project Development or Bureau of Technical Services is to be advised by the region of the project location, type of work, estimated quantities, total cost, and anticipated savings over a let agreement. This is to be done before preparation of a force account agreement is begun.

12.3.3 Updating an Approved Cost Effectiveness Finding

In most cases once the CEF is approved it will not need to be revised. However, if the Final Cost Estimate total costs are more than 10% greater than the cost as shown in the approved CEF, or there is a change in scope from the approved CEF, or if the year of construction is more than two years past the date of the approved CEF, the previously approved CEF will need to be revised and re-submitted for approval. The update should be similar in format to the initial CEF and include both the revised total cost estimate and an updated private cost comparison. The updated CEF is to be submitted to the Region MC for review. The Region MC will review the justification and, if satisfactory, will recommend approval to the Region Local Program Project Manager for approval. The Region Local Program Project Manager will have approval authority for any updates to the CEF.

For LFAs managed by the Region LFA coordinator, the municipalities will submit the updated CEF directly to the region LFA coordinator. The Region LFA coordinator will review the updated CEF, and has approval authority for the updated CEF.

12.3.4 Submitting the Agreement and P.S.&E.

Refer to FDM 19-25-5 for the composition and processing of LFA agreements and P.S. & E. submittals. Necessary agency approvals are discussed in FDM 3-20-45.

12.4 Region Limitations On Force Account Agreements

Refer to Attachment 11.1, A Policy on Construction of State and Federal-Aid Highway Projects by Forces and Equipment of Counties or Other Local Governmental Unit, in FDM 3-20-11 for limitations on Force Account Agreements.

12.5 Cost Effectiveness Findings for Contract Modification for Local Force Account Local

During construction, if new items are added to the agreement, documentation should follow the same process as a contract modification on a let project. The documentation should follow the CEF process, including detailing the Municipality's estimated costs as compared to a private contract cost for the new items.

12.6 Cost Effectiveness Findings at Completion of Construction for Local Force Account Local

Upon review of the final actual cost at the completion of construction, the project leader should evaluate the municipality's final actual cost and compare it to the final cost estimate submitted at PS&E. For any cost increases from the original or modified agreement amount, the Municipality should provide justification. The cost over the agreement amount should be reviewed to determine if they are eligible for reimbursement.

12.7 Periodic Evaluation of Cost Effectiveness Findings

The information from the review of individual projects at the completion of construction should be summarized as part of a periodic evaluation of CEFs. The purpose of the periodic evaluation is to ensure the process is working as intended and that LFA projects completed are cost-effective.

12.8 Filing Cost Effectiveness Findings

In addition to the original of each CEF being filed in either the region files (for LFA's on the local system) or Central Office Files (for LFAs on the STH system), an additional copy of each CEF shall be filed, by state fiscal year, in Central Office Files. Regions shall send the additional copy to Central Office Files, Hill Farms Room 651 stamped "Agency Copy" - SAVE FOR THREE YEARS".

LIST OF ATTACHMENTS

Attachment 12.1	Justification for Force Account Agreements more than $25,000 (LFA Federal Funded)
Attachment 12.2	Justification for Force Account Agreements $25,000 or Less (LFA Federal Funded)
Attachment 12.3	Correspondence/Memorandum (Federal Funded)
Attachment 12.4	Correspondence/Memorandum (State Funded)
Attachment 12.5	Letter of Approval for Programmatic Effectiveness Findings

FDM 3-20-15 Real Estate Activities

December 10, 1999

With project design established, the district proceeds to define the right-of-way needs, appraise the properties, develop the relocation plan, and acquire all properties and/or easements necessary to construct the project. Development of property maps or plats and the relocation plan are simultaneous activities that must be completed prior to property acquisition. Coordination between Design and Real Estate personnel is essential in this regard.

15.1 Right-of-Way Plats

Property maps or plats and descriptions are prepared by the district in accordance with the requirements of Section 84.09 of the Wisconsin Statutes: "Whenever the Department deems it necessary to acquire...lands or interests therein for any transportation related purpose, it shall so order and in such order or on a map or plat show the old and new locations and the lands and interests required, and shall file a copy of the order and map with the County Clerk and County Highway Committee of each county in which such lands or interests are required." The statutes further provide that "...the instrument of conveyance shall be filed in the office of the Register of Deeds."

Plats, descriptions and relocation orders are prepared, reviewed and approved by the district. This package of approved documents is called the “Relocation Order” and constitutes the authority to acquire the property specified therein. A copy of this approved material is sent to the Bureau of Highway Real Estate for filing and microfilming purposes.

For more information on the development of these documents, refer to the Real Estate Program Manual.

15.2 Relocation Plan

If the project involves the displacement of people, businesses, farms, or non-profit organizations, acquisition activities cannot proceed until an appropriate plan of relocation payments and services has been completed and approved by the Bureau of Highway Real Estate, and the Department of Work Force Development. In addition to the approvals, if federal funds are involved the plan must establish:

1. That within a reasonable period of time prior to displacement, comparable or suitable replacement dwellings will be made available for each person to be displaced.
2. That the state relocation program is realistic and is adequate to provide orderly, timely, and efficient relocation of displaced persons.

With the approval of the relocation payments and services plan, the plats and "relocation orders" can be approved and acquisition activities may proceed.

15.3 Property Acquisition

The acquisition function involves appraisal of the property and/or an assessment of damages. It also includes personal contacts with the property owner/occupant to answer questions, clarify policies and procedures, negotiate an equitable settlement, and provide relocation assistance. Finally, the property or interest is actually acquired either through purchase or exercise of eminent domain authority. The completion of right-of-way acquisition is certified to the Bureau of Highway Real Estate and to the FHWA if federal funds are involved in the project.

If a project involves an Agricultural Impact Statement, Wis. Stats. 32.035 allows the Department of Agriculture, Trade and Consumer Protection (DATCP) 60 days to prepare the AIS. Furthermore, this law specifies that a condemnor such as WisDOT may not negotiate with an owner or make a jurisdictional offer until 30 days after the AIS is published. These 60 and 30 day time periods must be considered when scheduling right of way acquisition activities.

Before such purchases can be made a request must be forwarded to the Bureau of Real Estate for review and approval.

15.4 Early Acquisition of Right of Way

Normally, wholesale right of way acquisition is not allowed to begin until after the Design Study Report is approved (see FDM 3-15-25). However, under certain circumstances, right of way may be acquired with state funds prior to DSR approval or completion of the environmental analysis process.

The following criteria must be met in order to acquire right of way early and still be eligible for future federal participation in project costs.

1. There can be no issue, problem or controversy involved in the concept or alternatives of the project or any regarding the parcel.
2. The acquired property must not influence the need for or location of the project.
3. The acquisition process must still follow other standard procedures such as a plat, relocation order, relocation assistance, etc. NOTE: If early acquisition is to be done then the relocation order may be approved prior to the DSR.
4. The acquisition must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
5. The acquisition must comply with Title VI of the Civil Rights Act of 1964.
6. The acquisition must not include lands protected by Section 4(f) of the DOT Act. Those parcels impacted by Section 4(f) cannot be acquired until an environmental document is approved.
7. The final project must meet all requirements for a normal federal-aid project such as compliance with NEPA, Historical Preservation Act, Endangered Species Act, Wetlands Executive Order, etc.
8. Other criteria as stated in Section 108(d) of Title 23, United States Code must be met. See Attachment 15.1.

9. Advance acquisitions must not be used to circumvent federal laws or regulations.

Districts should advise both Bureaus of Highway Development and Highway Real Estate if early acquisition of right of way will be part of a project. This may be done by E-Mail or it could be noted in the cover letter accompanying the plat.

15.5 Hardship and Protective Purchases

In certain instances it will be necessary to acquire individual real estate parcels earlier than is normal for the project development process. This would occur prior to the preparation and approval of the plat.

Before such purchases can be made a request must be forwarded to the Bureau of Real Estate for review and approval.

There are two types of acquisitions of individual parcels.

1. Hardship Request. These must be initiated by and for the benefit of the owner. The owner must show current economic hardship by continuing to own the property and also show their inability to sell the property.
2. Protective Purchases. These may be initiated by either WisDOT or the owner and may be for the benefit of either or both parties. They are usually limited to situations where a property may be developed, thereby increasing the future cost for WisDOT to acquire it .

The following conditions apply to hardship and protective purchases.

1. A real estate map may be used in lieu of a real estate plat when and only when, entire properties are purchased.
2. The project must be included in an approved highway improvement funding program or in an approved Regional Planning Commission transportation plan.

   Approved programs include:
   - The published or proposed 6-year program.
   - The unpublished Interstate program extended beyond six years, as maintained by the Bureau of State Highway Programs.
   - All enumerated major projects.
3. The design of the project must have progressed to the point where the need to acquired the property is evident. There must have been sufficient environmental analysis and public input to show that the property will be required for a particular corridor or alignment and the location must have selected. In the case of Major Projects, where many of these arise, that will typically occur between the public hearing and approval of the final environmental document.

Initially only a real estate “map” is needed, however, the parcel will have to be shown on the real estate plat at such time as one is prepared. See Procedure 2.4.3.5, R/W Plat and Relocation Order Requirements, of the Real Estate Program Manual for guidance on the content of the “map”. The “map” and a copy of an appropriate exhibit (e.g., from the environmental document) showing the selected location and it’s relationship to the property should be included with the request to purchase. Also included should be a statement describing the location selection decision (alternative chosen, when, by whom, etc.). These items must be provided to the Real Estate staff for inclusion in the request to purchase.

15.6 Early Appraisal Process

In certain rare circumstances the appraisal function may be permitted to occur prior to approval of the Design Study Report. Such a situation could exist when a project cannot be deferred to a later program year and it would be impossible to let the project in the scheduled year without allowing real estate activities to begin early.

Districts must request authority to begin this early appraisal process from the Bureau of Highway Real Estate. The request should include the following information.

1. State the need for a prompt start.
2. Explain why a formal Relocation Order cannot be processed.
3. Estimate the probable date when it can be submitted.
4. Include a sketch or preliminary plat of the lands to be acquired.

For a further description of right of way activities, refer to either the Real Estate Program Manual or the Relocation Assistance Manual of the Bureau of Highway Real Estate or to Chapter 12 of this manual.

LIST OF ATTACHMENTS

Attachment 15.1 Early Acquisition of Right-of-Way

FDM 3-20-20 Noise Analysis

July 12, 1991

20.1 Noise Study Report

During the final design phase of the facilities development process, a review and possible reevaluation of traffic and construction noise should be made, preparatory to the final Noise Study Report. Although an assessment of noise impacts is included in the environmental document, the necessity for affirmation of earlier noise predictions becomes apparent in light of design modifications that normally occur throughout project development. In any event, the Noise Study Report must be concluded and concurred in by the FHWA before P.S. & E. approval will be granted.

Projects generating increased traffic noise levels will require a report to document consideration of noise impacts and their mitigation. A consideration of construction noise will normally be included in this report. Type I and II projects (refer to FDM 21-5-1 and FDM 21-5-5) generally require noise reports.

If a project is considered to have no effect on traffic noise levels (usually Type III projects), it is exempt from the Noise Study Report requirements of FAPG Part 772. It will, however, still be necessary to evaluate construction noise impacts and to minimize them where possible, although no specific report is required to provide documentation.

When a report is required, necessary abatement measures are developed and any exceptions to design noise levels are noted. Coordination is established with local governmental units to provide them with noise information and a noise report is prepared. The district submits the report to the Bureau of Environment (BOE) for their review. BOE then submits the report (along with any requests for exceptions) to FHWA for their concurrence. Concurrence in the noise report and exceptions is required prior to submittal of the P.S. & E. (FDM 3-20-45).

For a further discussion of noise, refer to Chapter 23 of this Manual.

FDM 3-20-25 Railroad Coordination

April 19, 2002

25.1 Establishing Agreement

With design aspects of the project delineated, it may become necessary to establish agreements with any railroad involved. Toward this end, the district establishes initial contact with the local railroad officials to explain the concepts of the improvement and to obtain information on the particular railroad facility, applicable railroad design standards, etc. Early and continued coordination between the District Railroad Coordinator and the railroads is essential in order to preclude unfortunate project delays.

To effect agreements with a railroad, the district prepares a Railroad Grade Crossing Report (Form DT1589). A narrative should accompany the report to include such information as

- The specific design details of considered crossing alternatives,
- Summaries of previous contacts with railroad officials,
- Existing and proposed roadway cross sections at the crossing location,
- Geometrics of the railroad facility, and
- Delineation of all changes or alterations of the railroad facility that are necessary.

The district submits this report to the Bureau of Railroads & Harbors (BRH) for review. The BRH will handle all contract negotiations with the railroad. When agreements covering railroad force work are negotiated, copies of the documents are furnished to the district.

Section 84.05 of the Wisconsin Statutes requires establishing agreements with the railroad, including an apportionment of costs and maintenance responsibilities. If the railroad agrees with the design, apportionment, etc., an estimate of railroad force work required is obtained, agreements with the railroad are prepared, and the contracts submitted to the railroad for execution. If agreement cannot be reached, the matter is referred to the Office of the Commissioner of Railroads (OCR) for review. The OCR conducts a public hearing and issues an order approving or denying the Department's petition and apportioning the respective costs as appropriate.

It is necessary to certify that all railroad work has been completed or that all necessary arrangements have been made for the work to be undertaken and completed as required for proper coordination with the physical construction schedules to assure that unnecessary delays do not occur.

For more guidance on railroad coordination, refer to Chapter 17 of this manual.

FDM 3-20-30 Structure Design

April 2, 2004

30.1 DNR Liaison

When construction, reconstruction, maintenance, and repair of transportation facilities, including highways and bridges, encroach upon or are carried out within the limits of a floodplain (100-year flood), or otherwise affect stream profiles or navigational clearances, they are subject to review by the DNR in accordance with the provisions of Chapters 116 and 320 of the Natural Resources Administrative Code. In the interest of fulfilling the respective duties of WisDOT and DNR, and to provide a reasonable and economical procedure for carrying them out in a manner that is in the total public interest, the DOT and DNR have established a Cooperative Agreement whereby, through consultation and cooperation, each can accomplish its assigned statutory responsibilities while ensuring that adverse effects on Wisconsin's land, water, fish, and wildlife resources are minimized to the fullest extent possible.

During the initial design stages of any water-related structure, an assessment is

made of potential effects through consideration of discharge capacities, backwater elevations, potential upstream and downstream water damages, protection of the roadway and the structure and the property rights of present and future riparian owners, upstream and downstream, consistent with the constitutional principle of just compensation. All such project development activities are coordinated with the DNR and affected local units of government to assure that flooding effects are minimized and that the project is developed in recognition of established floodplain zoning.

30.2 Structure Survey Report (SSR)

The Structure Survey Report contains all data necessary to design a structure. It is prepared and submitted by the district or their consultant.

30.2.1 Content

To ensure that all required information is included in the Structure Survey Report, several standard forms have been created for specific situations.

Forms	Situation
DT1694	Separation Structure Survey
DT1696	Rehabilitation Structure Survey
DT1698	Stream Crossing/Box Culvert Structure Survey

WisDOT staff can click here to access electronic copies of these forms and checklists for completing them.

Consultants can access electronic copies of these forms by clicking here. Look under “Plans and projects.”

Consultants can view the checklists for completing these forms by clicking here.

The basic form specifies other listed materials which are also required to complete the SSR. If the structure is water related, additional copies of appropriate report materials (again as specified on the standard forms), along with copies of the preliminary plan, are supplied to DNR in accordance with the Cooperative Agreement.

30.2.2 Submittal

For district-designed projects, the designer submits two copies of the SSR.

1. To the Structural / Hydraulics Unit in the Bureau of Structures and
2. To the District Soils Engineer, who forwards it to the Geotechnical Section in the Bureau of Highway Construction.

For consultant-designed highway improvement projects that include structures, the consultant’s responsibility for submitting an SSR depends on their involvement with the design of the structure. See Table 1 below.

Table 30.1 Consultant SSR Responsibility

Consultant does both structure design & soils investigation*.	Consultant sends a copy of the SSR (along with the preliminary structure plans) to the Structure/Hydraulics Unit for review.

Consultant does structure design but not soils investigation.	1.Consultant sends a copy of the SSR (along with the preliminary structure plans) to the Structure/Hydraulics Unit for review. 2. Consultant sends copy of the SSR to District Soils Engineer who forwards it to the Geotechnical Section.
Consultant does soils investigation* but not structure design	Consultant sends copy of the SSR to the Structure/Hydraulics Unit to initiate structure design. The hydrologic and hydraulic report is not needed.
Consultant does neither structure design nor soils investigation.	1.Consultant sends copy of the SSR to the Structure/Hydraulics Unit to initiate structure design. The hydrologic and hydraulic report is not needed. 2.Consultant sends copy of the SSR to the District Soils Engineer who forwards it to the Geotechnical Section.

* When a consultant provides soils information they shall provide it in a graphical CADDS file as shown in Attachment 30.1.

For those structures to be designed by the Bureau of Structures – Structures Design Section, the SSR should be submitted according to the following schedule.

Structure Survey Report Submittal Schedule

Project Type	Report Submittal
Routine bridge maintenance	Minimum of 8 months before plans needed
New bridge or complex maintenance	Minimum of15 months before plans needed
New bridge with RR involvement	Minimum of15 months before plans needed

When WisDOT is responsible for the soils investigation and a consultant is responsible for the structure design, the SSR must be submitted to the Geotechnical Section at least six months before the consultant needs the soils investigation completed.

30.3 401-404 Project Assessment

Upon completion of the preliminary structure plan, a determination must be made upon the necessity for permit application to the U.S. Army Corps of Engineers (COE) for the placement of fill materials into waters and/or wetlands pursuant to Section 404 of the Federal Water Pollution Control Act. In order to obtain such a permit, certification of water quality (or waiver thereof) must first be obtained from the DNR in accordance with Section 401 of the Act and must accompany the permit request to the COE.

In the Costal Zone of the state (see FDM 5-10 Attachment 35.1 and FDM 5-10 Attachment 35.2) the Section 401 water quality certification must first be sent to the Federal Consistency Coordinator in the Department of Administration (FDM 5-10-35) to obtain a Costal Zone Consistency Determination (CZC). Then, both the section 401 water quality certification and the CZC must accompany the 404 permit request to the COE.

Through coordination with the COE, the effects of the construction upon water quality are reviewed to develop measures to mitigate the impacts both during and after construction.

30.4 401-404 Permits

The mechanics for preparation of the permit request are included in Chapter 21 of this Manual. In order to streamline the process, procedures have been developed to include receipt of testimony on 404 project aspects at DOT hearings and to provide for joint DOT-COE hearings on those projects where it is deemed appropriate. If a joint hearing is to be held, the COE requires that they receive the 404 permit request at least 90 days prior to the hearing date in order to accommodate their procedures. For further details on joint hearings, refer to Chapter 6 of this Manual.

30.5 Coast Guard Permits

If the proposed project affects navigable waterways under Coast Guard jurisdiction (33 CFR 2.5-25), the National Environmental Policy Act (NEPA) requires that suitable environmental documentation be prepared. In order to improve coordination and to avoid duplication of efforts on the part of the Coast Guard, the FHWA, and state agencies in the preparation and development of environmental documents, the FHWA and the Coast Guard have entered into a Memorandum of Understanding, which establishes the FHWA as the lead agency and provides for Coast Guard acceptance of all FHWA-prepared environmental documents.

When it has been determined that a proposed project involves a Coast Guard navigable waterway, the following liaison procedures apply:

1. For federal-aid projects for which an EIS or Environmental Assessment (EA) has been prepared [also including 4(f) statements], both the draft and the final are circulated through the Coast Guard for

review and comment. These reviews are timed to occur concurrently with the FHWA Division Office reviews.

2. For non-federal-aid projects for which an EIS or EA has been prepared, Coast Guard review for NEPA compliance is still necessary. Therefore, to avoid the potential for a rewrite of the document by the Coast Guard, the project should be cleared for federal aid (through FHWA) whether or not such aid will be ultimately utilized.

Applications for Coast Guard permits are initiated after it has been determined that a navigable waterway will be affected. Copies of the preliminary structure plans are submitted to the Coast Guard by the Bureau of Highway Development along with a letter of application for the permit describing the details of the project and delineating those structural details that will affect navigation--maximum vertical and horizontal clearances, the least clear height with respect to "low steel," etc.

Additionally, as with all federal permits for work that may affect water quality, 401 certification must be obtained from the DNR and, where applicable, the Costal Zone Consistency determination from the DOA before the Coast Guard will issue a permit.

30.6 Railroad Involvement

If the structure affects railroad tracks or property, then the general details of the structure design must be approved by the railroad and an agreement specifying the nature and extent of all work established in accordance with the provisions of Section 84.05 of the Wisconsin Statutes. To effect such an agreement, the preliminary structure plan delineating the necessary clearances is provided to the railroad through the Bureau of Railroads & Harbors, along with a proposal of project responsibilities.

The general terms of an agreement are enumerated in a document referred to as a "Stipulation," which is endorsed by the railroad and WisDOT. A copy is presented to the Commissioner of Railroads for information. The Commissioner generally schedules the matter for public hearing and issues an order in accordance with Section 195.29 of the Wisconsin Statutes. If railroad facilities require adjustment to accommodate the project, a final contract, called an "Agreement", is executed by the railroad and WisDOT. This Agreement specifies the work to be done by the railroad and the reimbursement they are to receive for their work. If no railroad facilities require adjustment, or if the railroad is performing such work at its own expense, the "Agreement" is omitted.

As in the case of at-grade crossings, if agreement cannot be reached with the railroad, the matter is referred to the Commissioner of Railroads for resolution in accordance with the provisions of Section 195.29 of the Wisconsin Statutes.

After agreement has been reached, the structure design is still subject to the approval of the FHWA if federal aid is involved in accordance with the provisions of FAPG Part 625.

After railroad comments are received concerning the preliminary structure plan and design disagreements are resolved, the final structure design is prepared by either WisDOT or an approved consultant, as appropriate.

See Chapter 17 for more information on railroad matters.

LIST OF ATTACHMENTS

Attachment 30.1 Sample Soils Information

FDM 3-20-35 Local Road Alterations *July 2, 1979*

During this phase of the facilities development process it is necessary to finalize all local road alterations necessary for the development of the project.

WisDOT has been vested with the statutory authority to alter local roads at its own discretion, without the specific approval of the local unit involved, in conjunction with designated interstate highways (Section 84.29, Wisconsin Statutes) and/or freeways or expressways (Section 84.295, Wisconsin Statutes). Such local road alterations are approved by the Division Administrator and subsequently filed with the local unit of government. Local road alterations necessitated by improvements to the remainder of the state trunk highway system (all non-84.29- and 84.295-designated highways) require only the approval of the final plans by the Bureau of Highway Development on behalf of the Department, and subsequently informing the local unit.

Even though local approvals are neither necessary nor are they sought, the district should work closely with the local units in order to maintain an atmosphere of cooperation. In that regard, documentation of the local unit's support for the project, in the form of a resolution or through the various public involvement activities, etc., is welcomed. For a further discussion of local road alterations, refer to Chapter 4 of this Manual.

FDM 3-20-40 Utility Coordination

April 19, 2002

During this step in the final design phase of the facilities development process, it becomes necessary to formalize coordination efforts with all affected utility companies and to establish the terms under which all such facilities will be adjusted (or newly constructed), to conform with the project and its schedule.

Early in project development activities, the district provides all utilities operating within the general project vicinity with conceptual project information to determine if their existing or planned facilities may conflict with the project. As plans are developed, further coordination ensues between the district and the utilities to define any necessary facility adjustments and to establish the general contractual terms under which such adjustment will be made.

The development and negotiation of such agreements is a district function but is assisted as necessary by input from the Design Services Section in the Bureau of Highway Development. The district submits completed agreements to the Design Services Section for review. Any changes in terms and subsequent re-negotiations are referred back to the district for resolution. The formal agreements are then entered into between the utilities and the department.

It is necessary to certify that all utility work has been completed or that all necessary arrangements have been made for the work to be undertaken and completed as required for proper coordination with the physical construction schedules to assure that unnecessary delays do not occur.

For a further discussion of coordination with utilities, refer to Chapter 18 of this Manual.

FDM 3-20-44 Project Review

August 31, 2006

During the final design phase, staff from various central office bureaus will review specific aspects of the project. These reviews can occur at different times during final design as the different parts of a project are completed.

The checklists shown in Attachments 1-6 identify what items are to be reviewed and who should do the reviewing. As each review is completed the central office reviewer will email the region to certify their review has been performed. Regions will retain these emails in their project file and transcribe the review date into the appropriate box in the Summary of Review Documentation (see FDM 19-10-15).

LIST OF ATTACHMENTS

Attachment 44.1	BHD - Quality Review Checklist
Attachment 44.2	BOS – Quality Review Checklist
Attachment 44.3	BHO- Quality Review Checklist
Attachment 44.4	BEES- Quality Review Checklist
Attachment 44.5	BRRH- Quality Review Checklist
Attachment 44.6	BHRE- Quality Review Checklist

FDM 3-20-45 P.S. & E

February 4, 2005

The preparation and assembly of the final plan and contract documents, referred to as the Plan, Specifications and Engineer's estimate (P.S. & E.), completes the final design phase of the facilities development process.

Upon completion of the final contract plan, the district prepares all special provisions, incorporating pertinent information concerning contract agreements with railroads and utilities, if applicable, and incorporating provisions designed to meet any environmental commitments made during project development. These documents, along with all estimates and certifications, are prepared and assembled by the district and comprise the P.S. & E.

If a project involves funding participation by a local unit of government or is under their jurisdiction, the local unit must approve the project through signature of the plan title sheet by the authorized local official. For those projects to be constructed within the jurisdiction of an incorporated municipality that will not be participating in project funding, the "Plans and Grades" of the improvement must be accepted by the local unit through resolution. The general format for such resolution is established in standard Form DT1933. In addition, if the project is to be constructed within a developed but as yet unincorporated area, a modified Form DT1933 may be used to document the acceptance of the "Plans and Grades" by the local unit having jurisdiction.

The approval of the contract documents and signing of the plans by the person in responsible charge completes

P.S. & E. development activities in the district.

For a further description of P.S. & E development, see Chapter 19 of this Manual.

Best Practice

The design team should hold a post-project meeting to review the results of the project and find ways to improve the design process and their own skills.

Design team members should visit the project while it is under construction to learn firsthand how well they communicated their design to the builders.